

4. (Amended) The method as specified in Claim 3, wherein [said step of] forming the second capacitor plate comprises depositing a material to form the capacitor plate.
5. (Amended) The method as specified in Claim 2, further comprising [oxidizing the portion of the capacitor plate to form the dielectric] forming the metal layer from at least one of titanium, copper, gold, tungsten and nickel.
6. (Amended) The method as specified in Claim 2, further comprising [the step of] applying a potential across an electrolytic solution and the metal [capacitor plate] layer to oxidize said metal [capacitor plate] layer.
10. (Amended) A method for fabricating a wafer, comprising [the following steps]:
forming a metal layer overlying a first conductive layer of a starting substrate; and
oxidizing the metal layer by applying a potential across an electrolytic solution and the metal layer.
11. (Amended) A method of fabricating a wafer, comprising [the following steps]:
forming a metal layer of a first material overlying a first conductive layer of a second material formed on a starting substrate;
contacting the metal layer with an electrolytic solution;
applying a potential across the electrolytic solution and the metal layer; and
oxidizing at least a portion of the metal layer in response to said [step of] applying to form an oxidized layer.
12. (Amended) The method as specified in Claim 11, further comprising forming [a capacitor plate overlying the starting substrate prior to said step of forming the metal layer, said metal layer overlying said capacitor plate] the first conductive layer from polysilicon.

13. (Amended) The method as specified in Claim 11, further comprising forming a [capacitor plate] second conductive layer overlying the oxidized layer.

14. (Amended) The method as specified in Claim 11, wherein a non-oxidized portion of the metal layer forms at least a portion of [a capacitor plate] the first conductive layer.

15. (Amended) The method as specified in Claim 11, wherein [said step of] applying the potential further comprises:

connecting a first electrode in contact with the electrolytic solution to a first terminal of a potential source; and

connecting the starting substrate to a second terminal of the potential source.

29. (Amended) A method for forming a capacitor, comprising [the following steps]:

forming a first electrically conductive layer of a first material;

forming a metal layer of a second material overlying the first electrically conductive layer;

contacting the metal layer with an electrolytic solution;

applying a potential across the electrolytic solution and the metal layer; and

oxidizing at least a portion of the metal layer to form an oxidized layer in response to said [step of] applying, said oxidized layer forming at least a portion of a dielectric layer of the capacitor, and the electrically conductive layer forming a lower capacitor plate.

30. (Amended) The method as specified in Claim 29, further comprising forming a [further] second electrically conductive layer overlying the dielectric layer to form an upper capacitor plate.

32. (Amended) A method for forming a capacitor, comprising [the following steps]:

forming [a metal layer] an electrically isolated conductive layer of a first material in contact with a starting substrate;

forming a conformal metal layer of a second material overlying the conductive layer;
contacting the metal layer with an electrolytic solution;
applying a potential across the electrolytic solution and the metal layer;
conducting current in the electrolytic solution in response to [said step of] applying the
potential; and

oxidizing a portion of the metal layer to form a metal oxide in response to said [step of]
conducting current, the metal oxide [being] constituting a [the] capacitor dielectric, [an] and an
unoxidized portion of the metal layer and the conductive layer [being] constituting a first
capacitor plate.

34. (Amended) The method [as specified in] of Claim 32, wherein the metal layer is an
initial metal layer and wherein the electrolytic solution is an initial electrolytic solution and
wherein the metal oxide is an initial metal oxide, and further comprising [the following steps]:

forming a further metal layer to overly the initial metal oxide;
contacting the further metal layer with a further electrolytic solution;
applying a potential across the further electrolytic solution and the further metal layer;
conducting current in the further electrolytic solution in response to said step of applying
a potential across the further electrolytic solution; and

oxidizing, in response to said step of conducting current, at least a portion of the further
metal layer to form a further metal oxide, the further metal oxide forming a further portion of the
capacitor dielectric.

37. (Amended) A method for forming a capacitor, comprising [the following steps]:

forming an insulative layer overlying a substrate;
masking the insulative layer to define a region in which to fabricate the capacitor;
removing the insulative layer in an unmasked region to expose the substrate;
depositing a polysilicon layer overlying the insulative layer and the substrate and
contacting the substrate;

removing portions of the polysilicon layer to expose the insulative layer;

chemical vapor depositing a metal layer to overly the polysilicon layer and the insulative layer;

contacting the metal layer with an electrolytic solution;

applying an electrical potential to the electrolytic solution and the metal layer; and

oxidizing, in response to said [step of] applying, at least a portion of the metal layer to form a metal oxide to function as a dielectric layer.

50. (Amended) [A] The method of [forming a capacitor] claim 38, wherein the metal layer includes titanium and conductive layer includes polysilicon [comprising only two deposition steps].

51. (Amended) The method as specified in Claim 50, further comprising:
forming the first metal layer from at least one of titanium, copper, gold, tungsten and nickel [a first capacitor electrode during a first deposition step; and
forming a second capacitor electrode during a second deposition step].

52. The method as specified in Claim 51, further comprising forming [a dielectric layer from said first capacitor electrode] the conductive layer from polysilicon.

⁷⁶
~~53.~~ (New) A method of forming a capacitor, comprising:
forming an electrically isolated polysilicon layer overlying a substrate;
forming a conformal metal layer atop the polysilicon layer;
electrolytically oxidizing at least a portion of the conformal metal layer; and
covering the oxidized portion of the metal layer with a conductive layer.

⁷⁷
54. (New) The method as specified in claim ⁷⁶~~53~~, wherein forming the conformal metal layer includes depositing one of titanium, copper, gold, tungsten and nickel.